REMARKS

As a result of the foregoing amendment, claim 10 has been modified to more clearly define the nature of the punching sheet.

Claim 14 has been amended to recite that the water impermeable body frame body prohibits leakage of an aqueous sample outside of the body as disclosed on page 8, line 27 to page 9, line 2 of the original specification. New claim 19 has been added to recite an embodiment in accordance with original disclosure at page 9, lines 26-27.

Reconsideration and withdrawal of the rejection of the claims under the second paragraph of 35 U.S.C. 112 are requested. It is believed that the amendment to claim 10 makes it clear as to what is intended by a punching sheet. With respect to claim 14, it is also believed that the amendment fully obviates the objection with respect to the expression noted by the examiner.

With respect to the rejection of claims 11 and 12, the examiners attention is directed to page 623 of Webster's Third New International Dictionary (copy enclosed). As defined therein, diameter is "a cord passing through the center of a figure or body (as a circle, conic section, sphere, cube): the length of a straight line to the center of an object." The dictionary clearly shows that "diameter" may be used for a body such as a cube. Thus, it is natural that in a case of a tetragon or hexagon, the diameter is the length of a diagonal line passing through the center which is the diameter of an imaginary circle formed by connecting all of the corners. It is thus believe that the use of the claim of the word "diameter" is correct and may be applied to the body of described in the claims. This rejection as well as the remaining rejections under 35 U.S.C. 112 should thus be withdrawn.

Reconsideration and withdrawal of the rejection of claims 4-8, 10 and 13-18 as being anticipated by the Amano, et al '173 patent are also requested. The examiner relies on Amano, et al. as teaching a multi-layer test strip comprised of a water impermeable layer and a light transmissive hydrophilic support, a reagent layer and a porous spreading layer. The examiner describes column 3, lines 45 through column 4 as teaching that the support may be made of PET which is identical to the example in the original which teaches that this layer may be made of the same polymer. Thus, the examiner has asserted that Amano, et al. discloses a traditional dry analytical element composed of a water impermeable light transmissive support, a reagent layer and a porous spreading layer. However, there is a fundamental difference in the dry analytical element of the present claims and that described in Amano. In particular, the difference is in the mesh layer as recited in claim 7 and the frame body as recited in claim 14 as compared to the spreading layer of Amano, et al.

The traditional dry analytical element has been made possible by the development of the spreading layer, which maintains the measuring stability by spreading the components contained in a sample supplied to the dry analytical element in a flat manner to feed them to the layer there beneath at a thoroughly constant rate per unit area without any unevenness in the distribution (page 2, line 22-page 3, line 3 of the present specification). In other words, the spreading layer functions to allow the sample to permeate in lateral direction much faster than in the longitudinal direction. Thus, the spreading layer has excellent ability for permeation of aqueous liquid laterally, and has very fine pores.

The spreading layer of Amano et al. is a woven fabric, etc. (col. 6, lines 17-39), especially broad cloth (col. 8, line 54). With a woven fabric as a spreading layer, it is woven closely and theoretically, no opening is presented to the surface. Thus, there is no pore diameter disclosed for woven fabrics used as spreading layers.

However, in US Patent 4,452,887 (a copy of the first page and columns 9 and 10 are provided herewith), a micro filter (FM 120, Fuji Photo Film Co., Ltd.) is used having a pore diameter of 1.20μm (a copy of the catalog is enclosed herewith).

In contrast, the analytical element of the present invention has the spreading layer removed as disclosed to page 3, lines 18-27, and utilizes each compartment as a measure, see page, lines 18-20. Strings constituting mesh are not required to be permeable as disclosed in page 10, lines 23-25, and the mesh layer has an aperture diameter of 0.05 to 7.5mm (claim 7) which is much greater than that of a spreading layer. The difference between the frame body recited in claim 14 from that of a spreading layer is clear, because the frame body is water impermeable and prohibits leakage from body (see amended claim 14).

The Examiner argues that page 3, lines 4-6 of the office action that the spreading layer is taught as having a void volume of 3 to 15 micro liters per square centimeter and reads on the claimed mesh layer having an aperture diameter of between 0.5-7.5mm. However, Amano et al. merely teaches that the void volume of 3-15 microns/cm^3 (which is apparently a clerical error) does not relate to pore diameter. Thus there is no relationship between the void volume and the pre diameter. The Examiner states at page 3, lines 6-8 that Column 6 teaches examples of the spreading layer and that the structure supporting the layers reads on the claimed water impermeable frame body which defines a compartment. However, the Amano et al. spreading layer is a porous layer having very fine pores which force spreading of an aqueous liquid laterally, and is quite different from the frame body as recited in the present claims. Accordingly, the Amano et al. does not anticipate the present invention as claimed.

Referring to the rejections of claims 11 and 12 as being obvious under 35 U.S.C. 103(a) over Amano et al., the above remarks also pertain to this rejection. Thus, Amano et al. contains no disclosure or even the remote suggestion of the invention as presently claimed.

With respect to the double patenting rejection, a terminable disclaimer was filed on June 17, 2003 in response to the office action of January 17, 2003 (copy enclosed). Accordingly, the obviousness patenting rejection has been obviated.

Accordingly, it is believed that this application is now in condition for allowance and favorable reconsideration of prognosis of allowance are earnestly solicited.

Respectfully submitted,

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By

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